

WHAT IS CLAIMED IS:

1. In a traffic control system for coordinated operation of a plurality of traffic control lights; a malfunction management unit having input terminals for receiving control signals grouped in channels and used to operate the traffic control lights; assignment means for establishing a parent channel-child channel relationship for the purpose of Red Fail fault testing; monitoring means for detecting a Red Fail fault from the signals in the parent channel and the child channel; and an output for controlling the operation of an output relay used to transfer the operation of the traffic control lights to a flashing mode of operation when such a Red Fail is detected.
2. The invention of claim 1 wherein said malfunction management unit includes a manually settable switch for enabling and disabling said monitoring means.
3. The invention of claim 1 wherein said malfunction management unit includes a display for indicating whether a Red Fail fault has occurred.
4. The invention of claim 1 wherein said child channel has Green, Walk, and Yellow control signals; and wherein said monitoring means ignores the Yellow signals for Red Fail testing.
5. The invention of claim 1 wherein said child channel has Green, Walk, and Yellow control signals; and wherein said monitoring means examines all the child channel signals for Red Fail testing.
6. A method of monitoring for Red Fail faults in a traffic control system for coordinated operation of a plurality of traffic control lights; said method comprising the steps of:
 - (a) providing a plurality of input terminals for receiving control signals grouped in channels and used to operate the traffic control lights;
 - (b) establishing a parent channel-child channel relationship for the purpose of Red Fail fault testing;
 - (c) detecting a Red Fail fault from the signals in the parent channel and the child channel; and

(d) controlling the operation of an output relay used to transfer the operation of the traffic control lights to a flashing mode of operation when such a Red Fail is detected.

5 7. The invention of claim 6 further including the step of providing a manually settable switch for enabling and disabling said monitoring means.

8. The invention of claim 6 further including the step of providing a display for indicating whether a Red Fail fault has occurred.

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9. The invention of claim 6 wherein said child channel has Green, Walk, and Yellow control signals; and wherein the Yellow signals are ignored during said step (c) of detecting.

15 10. The invention of claim 6 wherein said child channel has Green, Walk, and Yellow control signals; and wherein the Yellow signals are included during said step (c) of detecting.

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